

in Locustidæ). In *Gryllus capensis* regenerated tarsi still show three joints, but the new tarsus in this case is in some respects more massive than the normal one. The third joint is nearly equal to the first, while in the normal tarsus it is considerably longer than the latter. Finally, the second joint, which in the ordinary tarsus is very small and almost entirely hidden, is quite visible in the regenerated one. This difference is particularly noticeable in the case of the posterior limbs*.

So far as the nature of the tarsal regenerations is concerned in *Acridium rubellum* I cannot at present speak, my experiments with this species not being yet completed †.

BIBLIOGRAPHICAL NOTICE.

Die Fledermäuse des Berliner Museums für Naturkunde.—Neunzig, unter Leitung von Prof. W. Peters und Paul Matschie, gezeichnete und lithographirte Tafeln. Bearbeitet und durch Verbreitungskarten und Bestimmungstabellen für alle bekannten Arten ergänzt. VON PAUL MATSCHIE, Kustos am Museum für Naturkunde zu Berlin. Berlin: Georg Reimer. Erste Lieferung. Megachiroptera. Pp. 103, pls. i.–xiv., 1899. 24 Marks.

For many years every student of the Chiroptera has known of, and hoped for the publication of, the magnificent series of plates to illustrate this group of animals drawn by the famous draughtsman J. D. L. Franz Wagner under the direction of the late Prof. Peters. A foretaste of their quality was given by the publication of a few of them in illustration of some of Prof. Peters's papers, but otherwise, although many of them are now more than 30 years old, no one had been able to see them except at Berlin or at Genoa, to whose Museum Prof. Peters had given a set.

Now at last an instalment of them is published in illustration of a general work on Bats by Dr. Paul Matschie, accompanied by further plates drawn by that author's deceased wife.

This work will be of the greatest utility to all students of Bats, and abounds with evidences of the author's care and of the richness of the materials on which it is based. Synoptical tables are given of all the genera, subgenera, and species; and although some of those we have tried have not quite responded to the call made upon them, yet they give a most useful index to the characters mainly relied upon by the author in distinguishing the various forms.

* It should be stated that the regenerated tarsus represents one of the organic positions of stability intermediate between the actual normal form and an ancestral one.

† In Locustidæ and Gryllidæ the tibia of regenerated anterior limbs does not possess the *tympanic* apparatus which exists on the original limb.

The author's great interest in geography has, we think, led him to divide up some of the genera rather on geographical than zoological grounds, and on this account to "split" too liberally: the genera *Epomophorus* and *Macroglossus* are examples of this tendency. On the other hand (presumably through want of material), some forms are lumped which seem scarcely to deserve it. Thus to find *Pteralopex* reduced to a subgenus of *Pteropus*, on the same level as such scarcely definable subgeneric groups as *Sericonycteris*, *Acerodon*, or *Spectrum*, while *Pteropus Wallacei* is made the type of a new genus, shows to our mind rather a want in the power of balancing the value of zoological characters. The mere number of the teeth is of but little importance compared with their structure, and the absence of an incisor in *Pteropus Wallacei* is surely of less importance than the marked differentiation of nearly the whole dentition of *Pteralopex*.

In giving his lists of specimens in the collection at Berlin, Dr. Matschie prefaces them by the letters B.M.: a rather unfortunate choice, for "B.M." has been used for more than 60 years by a multitude of authors to indicate the British Museum; and as the two Museums, of Berlin and London, possess two of the four greatest collections of Bats, it seems a pity that initials which have always been used for the one should now be most confusingly dragged in for the other. Prof. Peters himself again and again used M.B., standing of course for Museum Berolinense. Some indication of the condition of the specimens, whether in spirit or in skin, would also have been of service to other workers.

Dr. Matschie is exceedingly fond of subgenera, subdividing many genera on rather slight grounds, and adding a serious number of technical names to our already overburdened lists. The synopses of species are placed under the respective subgenera, an arrangement which does not appear to increase the facility with which specimens can be determined, as compared with the more usual arrangement of placing the whole synopsis of a genus together.

The author omits to explain, nor is it possible to guess, why he shifts Linnæus's name "*vampyrus*" from what Dobson calls *Pteropus edulis* to *P. vulgaris*. Shiftings of names are always unfortunate, but a shifting without explanation cannot be too strongly protested against.

We heartily commend the care Dr. Matschie has taken with the nomenclature and his rigid adherence to the rules. Had Dr. Dobson been equally particular, the nomenclature of Bats might have been settled 30 years ago. Only we should prefer to accept Mr. Palmer's ruling in the difficult case of "*Cephalotes*," on the ground that the name itself is a sufficiently clear indication of the species Geoffroy had in mind when founding the genus. The restoration of the familiar terms *Macroglossus* and *Megaloglossus* is a good result of the newly accepted principle of the rigid adherence to the original spelling of generic names in all cases.

Altogether Dr. Matschie may be sincerely congratulated on the excellent way he has risen to the great opportunity which the publication of Wagner's beautiful plates has given him. O. T.